

AGRICULTURAL CHEMICALS SUBCOMMITTEE MEETING RECORD

TIME AND DATE:

10:30 AM, January 16, 2008

LOCATION:

TCEQ, Park 35, Building F, Room 2210, Austin, Texas

PURPOSE OF MEETING:

The FY08 Second Quarter Meeting of the Agricultural Chemicals Subcommittee of the Texas Groundwater Protection Committee.

ATTENDEES:

AGENCIES

Texas Commission on Environmental Quality [TCEQ]
Texas Department of Agriculture [TDA]
Texas State Soil and Water Conservation Board [TSSWCB]
Texas AgriLife Extension Service [TAES]
Texas AgriLife Research [TAR]
Texas Alliance of Groundwater Districts [TAGD]

REPRESENTATIVES

Joseph Peters	Acting Chair, Member, TCEQ, Austin
Ambrose Charles	Member, TDA, Austin
Donna Long	Member, TSSWCB, Austin
Bruce Lesikar	Member, TAES, College Station
C. Allan Jones	Member, TAR, College Station

AGENCY STAFF

Alan Cherepon	TCEQ, Austin
Richard Eyster	TDA, Austin
David Villarreal	TDA, Austin

INTERESTED PARTIES

Ed Baker	Syngenta Crop Protection, Mineola
Denise Gentsch	Syngenta Crop Protection, Austin
Danelle Farmer	Syngenta Crop Protection, Austin

MEETING SUMMARY:

I. Opening Remarks

The Acting Chairman of the Agricultural Chemicals Subcommittee, Dr. Joseph Peters (TCEQ), called the meeting to order. Donna Long (TSSWCB) has been appointed to replace Richard Egg (TSSWCB), and the Texas Structural Pest Control Board has become part of the Texas Department of Agriculture, and will no longer be included as a separate member of the subcommittee. Additionally, two name changes are effective since 1/1/08; The Texas Cooperative Extension (TCE) has become the Texas AgriLife Extension Service (TAES), and the Texas Agricultural Experiment Station (TAES) has become the Texas AgriLife Research (TAR). There were two Subcommittee members not in attendance, Janie Hopkins (TWDB) and Barry Miller (TAGD). Dr. Peters welcomed everyone to the meeting. The Subcommittee members introduced themselves and the meeting proceeded to the Task Force Reports.

II Task Force Reports

Site Selection Task Force: Janie Hopkins (TWDB), the Task Force Chair, was not present to provide an update. Alan Cherepon (TCEQ) mentioned that he would be presenting the 2008 proposed Monitoring Plan under Item IVa of the agenda.

Education Task Force: Bruce Lesikar (TCE), the Task Force Chair, provided a brief summary of activities undertaken in the past quarter, as well as several events scheduled in the near future. He conducted a training event in East Texas in December that included Best Management Practices (BMPs) for water quality protection. Also, they are preparing for irrigator training, which will include several handouts (related to water quality), at the following locations: Lubbock on 2/1/08, Uvalde on 2/15/08, and Hale/Swisher Counties on 2/6/08 (conducted by Dana Porter).

Pesticide Management Plan Task Force: The issues for the PMPTF were addressed under Item III and the 2007 Pesticide Water Quality Report as agenda Item IVb. (“Business Items”) later in the program.

None of the other task forces were active.

III. Pesticide Management Plan Task Force Activities

Alan Cherepon (TCEQ) gave a Power Point presentation and provided a handout summarizing the activities of the PMPTF in Fiscal Year 2008. Mr. Cherepon went over the 2007 Pesticide Water Quality Report Form that EPA requested TCEQ to complete for 2007. Because of the minimum amount of guidance, because the finalized version of the Form was not formally provided until late in the fiscal year, and because the work required to fill out the Form was not part of the grant work plan, only a minimal effort was expended in completing the form, including only the initial four PMP pesticides (atrazine, alachlor, metolachlor, and simazine).

Thus, the first four pesticides of interest (POIs) were assessed for 2007. TDA provided valuable review and input for this document.

An initial list of Pesticides of Interest (POIs) was selected by the Pesticide Management Task Force. The initial list of pesticides to be considered were the 2005 SFIREG List of 57 pesticides. The list was winnowed down by removing those pesticides not registered in Texas. These unregistered pesticides include DBPC, and Lindane, Cyanazine, and possibly Dieldrin. Next, pesticides that have limited use in Texas were removed from the list, or given a low priority. Also removed were those with chemical/physical characteristics (such as an affinity for soils/sediments or short half-life) that make them unlikely candidates for impacting water resources. After this selection process a final primary list of the following 13 pesticides remained: atrazine, atrazine degradates DEA and DIA, azinphos-methyl, diazinon, chlorpyrifos, malathion, 2,4-D, prometon, propazine, alachlor, metolachlor, and simazine. These pesticides will be assessed by monitoring with the use of available analytical methods, or if none are available for a particular pesticide, by review of the literature and other sources of available information. Should analytical data indicate the pesticide has approached or exceeded a benchmark or trigger concentration, or is on the 303d List, these would be classified under the pesticides of concern (POCs). Presently, there are no pesticides on the 303d List, although atrazine and several legacy pesticides have been on the list up till 2002, when they were de-listed.

These criteria for assessing pesticides were presented at the previous meeting, and for this meeting a flow chart for the process was prepared and presented. A priority list and secondary list were developed by the task force, to provide a starting point for assessments in 2008. Since atrazine, alachlor, metolachlor and simazine have already been addressed in 2007, there will likely be assessments for many of these in 2008, as time and resources allow. Also, a numerical scoring metric was developed, in draft form, to provide a more scientifically defensible approach to this assessment of pesticides for EPA. Mr. Cherepon also went over the reporting form briefly, touching upon several questions, to provide the subcommittee with some understanding of what is required for completion. He added one additional comment of what California told him, when asked what their state did on the 2007 form. The California program manager said that since so little money is being provided for this by EPA, they told EPA they did not want the grant money.

IV. Business Items

2008 Proposed Monitoring Plan and Pesticides of Interest – Discussion and Approval

Mr. Cherepon provided a summary and handout for the review, discussion, and approval of the 2008 proposed Monitoring Plan. The ACS consider those the pesticides of interest as developed by the PMPTF, so as to direct monitoring toward assessment needs. Mr. Cherepon next covered each type of monitoring listed under separate headings.

The on-going monitoring in the Panhandle will only be considered if Syngenta decides to re-sample the Hale County Airport monitoring wells (notably well 13). However Syngenta

indicated that they would not be able to sample the well in 2008 to refute or confirm TCEQ results. Since atrazine concentrations have not changed substantially at the Hale County Airport wells over the years (except for well 13 at the airport), TCEQ will conduct on-going monitoring there only every other year.

Dr. Jones (TAR) asked whether any trends have been identified in the on-going monitoring of the PWS wells in the Panhandle. Mr. Cherepon replied that during the 2007 monitoring summary presentation at the last meeting, a graph of sampling results on specific wells in Plainview was provided (It only provided immunoassay results). The PWS well data indicated a fairly slow but steady decline in atrazine concentrations, while the data from the monitoring wells indicated more erratic changes in concentration. However, there are some problems in attempting to determine trends. PWS well 16 was taken out of service for about 2 years, and is not used as much as previously due to the atrazine levels. PWS well 17 has remained steadily low, while the airport monitoring wells have been rather erratic and not all of them have been sampled regularly. Also, the monitoring wells were installed over several years, by different contractors. Some of the wells were poorly placed, designed and/or constructed, resulting in several of them recharging rather slowly. Some may even allow precipitation runoff to drain down the well bore and/or casing, thus diluting the water in some wells. The process of having to hand bail the wells to evacuate 3-5 volumes of water from the well casing is sometimes not possible on the more slowly recharging wells, and thus they cannot always be properly sampled. These conditions may all combine to explain the variations in atrazine concentrations. Mr. Cherepon added that a cross-section he constructed for the investigation indicates a perched water table near or at the airport. Pesticides from the surface could possibly be slowly migrating off the perched water table and into the lower main water table, which might be adding to the variation in concentrations over time.

Other information was introduced at this time. In recent years there have been no permanent aerial applicators operating out of the airport. There have not been any since about 2002 when the boll weevil eradication program was underway. Even these activities were somewhat limited. More recently mosquito spraying operations for the city have been run out of the airport, at two to three applications per year.

The urban pesticide groundwater monitoring in San Antonio and Austin this past summer will be expanded in 2008 with the goal of sampling more wells for more pesticides. While there were only some minor detects of atrazine and diazinon, more extensive sampling is scheduled for 2008, as time and money allow. The program may be extended to Houston. There was some mention of possibly trying to coordinate with the USGS and the TWDB, but it was revealed later in the meeting that TWDB conducted monitoring there with the USGS last year, and that the staff at the USGS headquarters mentioned at a SFIREG meeting that the USGS was planning on sampling by themselves in Houston and four other cities in Texas in 2008.

The pyrethroids analyses done the previous year would be replaced by 2,4-D analyses by immunoassay, and glyphosate analyses also would not be repeated since these two pesticides tend to adhere to soils/sediments and have short half-lives. Atrazine would be continued for all urban samples, but would probably be cut back a little in the cooperative monitoring.

The cooperative monitoring with the TWDB for atrazine will continue but at a reduced level. The Barton Springs/Edwards Aquifer Conservation District and possibly several other entities, may continue with urban pesticide monitoring cooperation.

Special monitoring will be conducted only if this can be worked out with the USGS. The ACS will continue to push for pesticide monitoring by the TCEQ surface water programs in the agency. However, both of these activities appear doubtful. The Public Drinking Water monitoring program will include six pesticide degradates as part of the Uncontrolled Contaminant Monitoring Regulation 2 (UCMR2) program, which will provide some screening results for degradates of three acetanilide pesticides.

A listing of anticipated analyses was provided as follows.

* About 500 immunoassay analyses are expected to be performed in the expanded urban pesticide screening program. These are to include atrazine, diazinon, chlorpyrifos, 2,4-D, and organophosphate/carbamate.

* Laboratory analyses will be performed on samples from metropolitan areas for urban pesticides on the list of those selected for assessment in 2008. Method 515.1 will be used for 2,4-D, picloram and dicamba; Method 622 for chlorpyrifos, malathion, diazinon, and azinphos-methyl; and Method 525.2 for atrazine, alachlor, metolachlor, simazine, prometon and propazine.

Some comments and questions were offered by the ACS members. One reason the Source Water Quality Management (SWQM) program does not do many pesticides is because of the EPA NELAC ruling which requires an annual fee for each method. Also, the surface water programs typically conduct general toxicity tests rather than analysis for specific pesticides. The Chair asked Mr. Cherepon if he could prioritize the various types of monitoring to be performed. They can be prioritized as follows:

1. Urban Pesticide Screening by Immunoassay
2. Special lab analyses for urban pesticides
3. Cooperative Monitoring
4. On-going Monitoring (It is doubtful that this last one will be conducted in 2008)

Dr. Jones (TAR) asked if there was an estimate on the percentage of cooperative samples having detects, to which Mr. Cherepon answered that around 5% had detects. The Chair then called on a vote to approve the 2008 pesticide Groundwater Monitoring Plan, and it passed unanimously.

2007 Pesticide Water Quality Reporting Form

Mr. Cherepon commented that most of the reported information on the form submitted to EPA in December was addressed during the presentation earlier in the program. He credited TDA with their help in reviewing and finalizing the form prior to delivery to EPA. A more substantial effort is expected for the 2008 form. Dr. Charles (TDA) speculated that the form was directed from EPA headquarters and that that the EPA regions were probably not provided much guidance on how to complete them. In the past EPA used these types of directives as a means of getting state input and getting help in the development of programs. Mr. Cherepon added that this theory seemed to agree with what the other states have told him. Dr. Charles said they

typically follow what Texas does, and Ms. Long (TSSWCB) added that Texas materials typically end up in the national guidance. It was agreed that Texas was in good shape for 2008, and probably well ahead of the rest of the states with the assessment process.

IV. Information Exchange - Status Update

Since a USGS representative was not present, Mr. Cherepon read an e-mail reply from Lynne Fahlquist, which summarized the groundwater monitoring plans they had for Texas in 2008. The USGS is planning on conducting limited groundwater monitoring in the Carrizo-Wilcox aquifer, also including one or two monitoring wells in the San Antonio segment of the Edwards aquifer. (An additional point was disclosed a little later in the meeting, when David Villarreal [TDA] mentioned that USGS headquarter staff commented during a SFIREG meeting that they thought they would also be conducting urban monitoring in the Houston region, but this was not confirmed by the regional USGS staff).

David Villarreal (TDA) provided a brief summary of the most recent SFIREG Water Quality meeting. He is serving the first year of a 3-year term as representative for Region 6 at the national meetings of this group. He focused his summary to groundwater issues that related to pesticides. Dr. Villarreal reiterated that Texas is way ahead of the rest of the nation with the POI assessment process. He added that EPA headquarters indicated that the 2007 Pesticide Water Quality reporting forms were optional for 2007, in contradiction to the Region 6 EPA staff, who said that it was required. Mr. Cherepon chose the good course in completing the form as best he could, positioning Texas way ahead in this task. We developed many mechanisms unique to Texas for pesticide assessments, and that are more scientifically defensible. Texas has also charged a task force specifically to work on these tasks.

The various states have complained of being given no benchmarks or standards on which to base the determination of POIs and POCs, especially for degradates. This puts the states in the interesting position of having to proceed in making assessments without any guidance. EPA said that for the interim the top degradates should be considered equivalent to the parent compound in toxicity and risk.

Dr. Villarreal clarified some comments made earlier about USGS groundwater monitoring in Texas in 2008. When he asked USGS staff about plans for Texas, they indicated their focus would be on urban pesticides, primarily in El Paso (except that stream samples would focus on agriculture in El Paso), San Antonio, Dallas, and Houston (agricultural and urban pesticides). Someone questioned what agricultural pesticides or activities would be of concern in Houston. Dr. Villarreal wasn't sure, but felt the USGS was possibly tying up loose ends and adding more coverage.

Dr. Villarreal reported that another concern voiced at the SFIREG meeting was about who is reviewing pesticide labels from a groundwater perspective. EPA commented that they would try to improve in this area in the future (by having someone familiar with groundwater hydrology be involved in these reviews).

Dr. Villarreal added there was nothing new on the propazine re-registration monitoring program, stating that the company is working with EPA on this, but there is still nothing final as of yet. There was nothing new to report on the Barton Springs Pesticide Determinations updates either, other than indications are that atrazine is unlikely to be detrimental to amphibians or cause cancer. Mr. Cherepon added that EPA published a recent notice of a FIFRA panel to review preliminary interpretations of the 3-year atrazine monitoring program. He also added that the UCMR2 program would begin screening for the top two pesticide degradates for metolachlor, alachlor, and acetochlor. Dr. Villarreal added that the problem is what do the states do with a degrade detection and how to treat these.

Mr. Cherepon summarized the compilation of monitoring results at the Hale County Airport in Plainview. This work resulted from the discovery of a high concentration of atrazine in monitor well 13, which was roughly three times higher than the previously highest concentration. Ed Baker (Syngenta) requested these results at the previous meeting of the ACS, and Mr. Cherepon thought the findings should be shared with the subcommittee also. MW-13 has had previous high atrazine detects, by both laboratory and immunoassay analyses. However, the high detects in 2007 were considerably higher than previously encountered and worthy of review.

During a question and answer period, Mr. Cherepon initially indicated that a cross section in the area shows a perched water table, from which pesticides could possibly “drip” downward and slowly be migrating from surface spillage into the deeper aquifer zone in which the monitor wells are completed. Afterwards, he added that the wells were not designed or installed by the same company, and that some of the wells were poorly constructed. While attempting the evacuation of the 3-5 well volumes required prior to sampling, several wells would not recharge sufficiently to allow for proper sampling, and would require at least overnight recharging. Knowing this issue, he added that the high atrazine concentrations may have been due to periods of lower precipitation, when the sampled water from the wells was stagnant well casing water, and the times when the concentrations were lower may have been following heavier precipitation, when the rain could have migrated quickly down improperly constructed or designed wells, thus diluting the well bore water. With the well issues and sampling problems at the airport, it would be difficult to absolutely define these issues and reasons. However, sampling continues to reveal high concentrations near the fuel pump island, as initially discovered during the investigation in 2001.

V. Public Comment

Danelle Farmer (Syngenta) notified the subcommittee that the City of Austin was holding a meeting at their offices on 1/30/08, to discuss their Grow Green program with various stakeholders. The attendees will also include TCEQ, TDA, and Travis County Extension staff, and possibly others. Syngenta will have several of their scientists presenting material on weed and feeds and pesticides.

VI. Announcements

Ms. Long (TSSWCB) announced a request for proposals for 319 grant work, and that perhaps proposals could be made to study groundwater and surface water interaction. EPA wants most of

the awards to go to TMDLs, but they are willing to consider groundwater-surface water interaction in Texas. Only 10% of the grant money can be spent on groundwater, thus TSSWCB could use some input in stressing groundwater-surface water interaction so as to get as much funding as possible for this work. The RFP and a list of water bodies in Texas are posted on their website. Anyone with knowledge of groundwater-surface water interaction or potential for interaction should contact Ms. Long. This can be a joint project between TSSWCB and other agencies, and the deadline for proposals is 2/1/08.

Mr. Cherepon announced a request for public input for the Pecos River Watershed Protection Plan, which he received this morning from EPA. Mr. Cherepon only had a few minutes to check the website at Texas A&M, and had a couple of comments: The 2007 minutes were missing and Subtask 1.2 for water quality data only identifies the TWDB as the source for groundwater data. Dr. Jones (TAR) said he would check into these items. Mr. Cherepon also noticed TCEQ does not appear to be overly involved in the program, and that he sent an e-mail to the TCEQ Clean Rivers program person, Laurie Curra, but has not heard back from her. Ms. Long confirmed that TCEQ does not have a major role in this program.

Mr. Cherepon announced that the TCEQ annual Environmental Trade Fair will be held from 4-29-2008 to 5-1-2008, where he will be presenting a paper on urban pesticide monitoring in Texas in the morning on April 30th. The TGPC will also have a booth and is looking for volunteers to assist in tending it. Volunteers will be able to attend some of the talks and visit in the vendor area for free.

The Texas Ground Water Association convention will be held in Lubbock from 1/22-25/08.

With no further comments or announcements, the meeting was adjourned.

VII. Adjournment

Recorded and transcribed by Alan Cherepon.

Attachments

Slides from the Summary presentation of PMP Task Force activities related to Pesticides of Interest

2008 Proposed Monitoring Plan

2007 Pesticide Water Quality Reporting form

Hale County Airport map and table of analytical results from groundwater samples

In their afternoon meeting, the decision was made by the Texas Groundwater Protection Committee that the FY08 third quarter meeting of the Agricultural Chemicals Subcommittee will take place on 4/9/08 at 10:30 a.m., in TCEQ Building F, Conference Room 2210.